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IDS Information

Content	Mailroom Date	Entry Number	IDS Review	Last Modified	Reviewer
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M844	2006-03-30	52	Y ☑	2006-08-07 09:42:20.0	CNguyen1
M844	2006-03-27	51	Y ☑	2006-08-07 09:42:15.0	CNguyen1
M844	2005-09-26	43	Y ☑	2005-12-22 15:20:43.0	EBurns
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L1: Entry 1 of 1   File: DWPI   Aug 1, 2000

DERWENT-ACC-NO: 2000-654984
DERWENT-WEEK: 200063
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TITLE: Geometric figure identification method for computer based symbol
recognition, involves selecting patterns relevant to identified distortion
compensated pixels and matching with geometric figures

INVENTOR: LIU, L

PATENT-ASSIGNEE: INTERMEC IP CORP (INTEN)

PRIORITY-DATA: 1997US-0814001 (March 10, 1997)

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PATENT-FAMILY:

	PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
☐	US 6097839 A	August 1, 2000		018	G06K007/10

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6097839A	March 10, 1997	1997US-0814001	

INT-CL (IPC): G06 K 7/10; G06 K 9/00

ABSTRACTED-PUB-NO: US 6097839A
BASIC-ABSTRACT:

NOVELTY - A group of pixels for identifying the image shape are produced, after
performing distortion compensation subroutines. The pixels representing geometric
figures with patterns are selected. The patterns with lines and curves having width
independent of measured figure is identified. The identified figure is matched with
patterns, to extract symbol.

DETAILED DESCRIPTION - Specific pixels in the input symbol image are located and
pixels along the edges of geometric figure is identified. Based on the
identification, a group of selection pixels are produced. The distortion in pixels
is compensated, using distortion compensation sub-routine. The gradient vector of
specific pixel is determined and is compared with standard vector. Based on the
comparison, pixels are selected and accordingly the figure is identified.

USE - For computer based symbol recognition using laser barcode reader.

ADVANTAGE - Enables locating the target geometric pattern in the images precisely

irrespective of damage of label image by providing distortion compensation. Reduces
processing time, as less number of distortion compensation sub-routines are
utilized.

DESCRIPTION OF DRAWING(S) - The figure shows the flow chart representing the
geometric figure identification routine.

ABSTRACTED-PUB-NO: US 6097839A
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.12/12

DERWENT-CLASS: T01 T04
EPI-CODES: T01-C06; T01-J10B2; T04-A03B1;

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L2: Entry 1 of 1   File: DWPI   Jul 23, 2002

DERWENT-ACC-NO: 2002-672976
DERWENT-WEEK: 200272
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TITLE: Graphical object rendering method involves extending color borders
associated at edges of rendered image

INVENTOR: BILODEAU, W D; GEORGE, P ; LAZARONY, D R

PATENT-ASSIGNEE: ADOBE SYSTEMS INC (ADOBN)

PRIORITY-DATA: 1998US-0072503 (May 4, 1998), 1998US-0056894 (April 6, 1998)

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PATENT-FAMILY:

	PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
☐	US 6424430 B1	July 23, 2002		015	G06F015/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6424430B1	April 6, 1998	1998US-0056894	CIP of
US 6424430B1	May 4, 1998	1998US-0072503	

INT-CL (IPC): G06 F 15/00; G06 K 1/00

ABSTRACTED-PUB-NO: US 6424430B
BASIC-ABSTRACT:

NOVELTY - A silhouette of graphical object is determined from its rendered image in
a raster buffer. The color borders associated at the edges of the image are
extended and the color border in the buffer is converted. The raster image is then
clipped based on the silhouette, resampled and rendered to a display device.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for graphical object
rendering program.

USE - For rendering graphical objects on graphical rendering devices such as video
monitor, printer, e.g. PostScript printer.

ADVANTAGE - By extending the color borders associated at the edges of the image,
the ringing artifacts and clipping errors are eliminated and thus a high quality
output is obtained. Since the clipping path is not determined based on the
specification of the graphical object, complex graphical objects can be handled.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart for rendering a clipped image on a display device.

ABSTRACTED-PUB-NO: US 6424430B
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/9

DERWENT-CLASS: T01 T04
EPI-CODES: T01-J10B3B; T01-J10C4; T01-S03; T04-D03;

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L3: Entry 4 of 4   File: DWPI   Mar 20, 1990

DERWENT-ACC-NO: 1990-132012
DERWENT-WEEK: 199017
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TITLE: Intensity edge path detection method - determining gradient magnitude and
image direction in node point array using gaussian weighted gradient operator

INVENTOR: EICHEL, P H

PATENT-ASSIGNEE: EICHEL P H (EICHI)

PRIORITY-DATA: 1985US-0782227 (September 30, 1985)

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PATENT-FAMILY:

	PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
☐	US 4910786 A	March 20, 1990		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 4910786A	September 30, 1985	1985US-0782227	

INT-CL (IPC): G06K 9/48

ABSTRACTED-PUB-NO: US 4910786A
BASIC-ABSTRACT:

The intensity edge paths detection method includes an initial step of determining
the gradient magnitude and direction of the image in an array or lattice of node
points using a Gaussian weighted gradient operator. A root node having a high
probability of being on an edge path is then selected by selecting a node having a
high gradient magnitude.

The metric for each adjacent node to the root node is then calculated. The various
metrics are stored for each such adjacent node. Using the adjacent node having the
highest metric, the metrics for other nodes adjacent thereto are calculated. These
steps are repeated and the edge path having the highest metric is thereby
determined.

USE - For image produced by technique which is selected from group consisting of X-
ray, CAT scan, nuclear magnetic resonance, photographic, video recording, and
photodetection techniques.

ABSTRACTED-PUB-NO: US 4910786A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/3

DERWENT-CLASS: T04
EPI-CODES: T04-D03;

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L3: Entry 2 of 4   File: DWPI   Apr 2, 1992

DERWENT-ACC-NO: 1992-132307
DERWENT-WEEK: 199216
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TITLE: Generation of video binary signal for video image - detects minimum and
maximum grey scale pixels to produce grey scale threshold

INVENTOR: HOLT, K C

PATENT-ASSIGNEE: TEKNEKRON COMMUNICATIONS SYST (TEKNN), TEKNEKRON COMMUNIC (TEKNN)

PRIORITY-DATA: 1990US-0583444 (September 17, 1990)

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PATENT-FAMILY:
      PUB-NO   PUB-DATE   LANGUAGE   PAGES   MAIN-IPC
  ☐   WO 9205518 A   April 2, 1992   E   036
  ☐   AU 9187124 A   April 15, 1992   000   G06K009/48
  ☐   US 5189710 A   February 23, 1993   016   G06K009/48

DESIGNATED-STATES: AU CA JP KR AT BE CH DE DK ES FR GB GR IT LU NL SE

CITED-DOCUMENTS:US 4501016; US 4550435 ; US 4688175 ; US 4910786 ; US 4969202

APPLICATION-DATA:
PUB-NO   APPL-DATE   APPL-NO   DESCRIPTOR
WO 9205518A   September 16, 1991   1991WO-US06688
AU 9187124A   September 16, 1991   1991AU-0087124
AU 9187124A   September 16, 1991   1991WO-US06688
AU 9187124A   WO 9205518   Based on
US 5189710A   September 17, 1990   1990US-0583444

INT-CL (IPC): G06K 9/48

ABSTRACTED-PUB-NO: WO 9205518A
BASIC-ABSTRACT:

A discrimination threshold is dynamically set by receiving a number of pixels and
determining the grey value of the pixel which has the maximum grey value. The
maximum grey value is stored in memory. The grey value of the pixel having the
minimum grey value is determined and that value is also stored in memory.

A grey scale threshold is determined, based on the minimum and maximum grey value stored in memory. Each pixel of the image is then compared with the grey scale threshold to produce a first binary output for each pixel.

USE/ADVANTAGE - Processing of an image which is composed of a matrix of pixels. Does not require an extensive amount of computation.

ABSTRACTED-PUB-NO: US 5189710A
EQUIVALENT-ABSTRACTS:

The appts. dynamically sets a discrimination threshold for the processing of an image. The image is composed of a matrix of pixels, each pixel having a grey scale value. The pixels are arranged in lines. The pixels are supplied to a line buffers memory from the latter, the white peak line and the black min. line are supplied to a peak and min. detectors. The white peak value and the black min. values are stored. The stored values are supplied to a threshold calculator to which a user selectable input is also supplied.

The output of the calculator is a threshold level which is used by comparator. Another input to the comparator is the grey scale value of the pixel from the image. The output of the comparator is a binary video signal.

ADVANTAGE - Reduced amt. of computation required.

CHOSEN-DRAWING: Dwg.2/6 Dwg.1/6

DERWENT-CLASS: T01 W04
EPI-CODES: T01-J10B; W04-N05C;

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   L3: Entry 3 of 4   File: DWPI   Mar 4, 1992

DERWENT-ACC-NO: 1992-073941
DERWENT-WEEK: 199210
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TITLE: Real-time edge detectidon for shape recognition in image analysis - using maxima in grey levels in region of pixel to locate edges, and comparison with standard pixel patterns to identify edge

INVENTOR: DUFOUR, J; LE GALL, S ; WALDBURGER, H ; DUFOUR, J Y ; GALL, S

PATENT-ASSIGNEE: THOMSON TRT DEFENSE (CSFC), THOMSON-TRT DEFENSE (CSFC)

PRIORITY-DATA: 1990FR-0009742 (July 31, 1990)

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PATENT-FAMILY:

	PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
☐	EP 473476 A	March 4, 1992		000	
☐	AU 642280 B	October 14, 1993		000	G06F015/70
☐	AU 9181499 A	February 6, 1992		000	
☐	CA 2047811 A	February 1, 1992		000	
☐	FR 2665597 A	February 7, 1992		000	
☐	IL 98842 A	January 25, 1994		000	G06F015/68
☐	US 5233670 A	August 3, 1993		013	G06K009/48

DESIGNATED-STATES: BE DE GB IT NL SE

CITED-DOCUMENTS:EP 229543; EP 279297 ; US 4910786 ; WO 8703118

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 473476A	July 30, 1991	1991EP-0402126	
AU 642280B	July 30, 1991	1991AU-0081499	
AU 642280B		AU 9181499	
FR 2665597A	July 31, 1990	1990FR-0009742	
IL 98842A	July 15, 1991	1991IL-0098842	
US 5233670A	July 22, 1991	1991US-0733807	

INT-CL (IPC): G06F 15/68; G06F 15/70; G06K 9/46; G06K 9/48; G09G 5/00; H04N 5/14

ABSTRACTED-PUB-NO: EP 473476A
BASIC-ABSTRACT:

The image analysis approximates, for each pixel, the gradient of the distribution
of grey levels in the region of this pixel. A discriminator (30) extracts from
among a pixel group a sub-group of pixels that corresp. to a local max. based on
the distribution of grey levels.

A comparator compares the grey level maxima in the region about a pixel with a
series of standard configurations to identify rectilinear contours.

USE/ADVANTAGE - Real-time identification of edges in digitised image data, for
identification of ground features to aid aircraft navigation.

ABSTRACTED-PUB-NO: US 5233670A
EQUIVALENT-ABSTRACTS:

The method comprises the steps of: approximating for each pixel the gradient of the
gray level function of the image at the position of each pixel, said gradient being
defined by an argument, representing an element of direction information, and by a
norm, representing an element of amplitude information of the transition of the
gray level in said direction, extracting from among all of said pixels a sub-set of
contour pixels, where each contour pixel corresponds to a local maximum of the gray
level function in the direction of the gradient, the maximum being determined from
said amplitude information, complementing the sub-set of contour pixels by
interposed filler pixels if a discontinuity of the corresponding contour exists in
a given neighbourhood, and performing for each contour pixel or filler pixel a
comparison between the neighbourhood of the contour or filler pixel with a series
of characteristic pixel configurations, and designating the corresponding pixel as
being a rectilinear contour pixel if the comparison determines a correspondence of
the neighbourhood of the pixel with one of the characteristic configurations.

USE/ADVANTAGE - For localising rectilinear contours in digitised image, e.g. for
localising roads, bridges, railways, canals etc. stereo-vision applications. Wider
scope of application.

CHOSEN-DRAWING: Dwg.6/7 Dwg.1/7

DERWENT-CLASS: P85 T01 T04 W06
EPI-CODES: T01-J10B2; T04-D03B; W06-B01B1;